International Journal of Surgery Case Reports 10 (2015) 204–205

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Small bowel obstruction secondary to greater omental encircling band–Unusual case report

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ARTICLE INFO

Article history:
Received 8 January 2015
Received in revised form 25 February 2015
Accepted 3 April 2015
Available online 8 April 2015

Keywords:
Intestinal obstruction
Omentum
Encircling band
Band resection

ABSTRACT

BACKGROUND: The most common cause of small-bowel obstructions in adults is postoperative adhesions. Intestinal obstruction due to omental band is very rare and only few cases are previously reported in literature.

CASE PRESENTATION: We report a 42 year old male patient present with complaints of abdominal distention and obstipation. X-ray and ultrasound shows dilated bowel loops. On exploratory, laparotomy omental band presents encircling completely around mid ileum. Distal small bowel had multiple adhesions. Omental band resected and ileostomy formed. Multiple mesenteric lymph nodes present biopsy shows tubercular granuloma. Patient recovers uneventfully.

CONCLUSION: Intensive diagnostic investigations and early surgical intervention should be considered in any adult patients with signs and symptoms of acute SBO to avoid possible complications of bowel strangulation and gangrene.

1. Introduction

Small bowel obstruction (SBO) is a common occurrence in adult surgical procedures. About 60% of SBO are currently accounted for adhesion mainly due to previous laparotomy [1]. Acute, non-postoperative SBO is less common and has various etiologies. Hernia is the next most common cause followed by neoplasia [2]. We present an unusual case of SBO secondary to the omental encasement without previous history of abdominal surgery or acute inflammatory process in the abdomen.

2. Case report

A 42-year-old man was admitted to our hospital in emergency department with complain of abdominal distention and obstipation from last 10 days. Patient had past history of anti-tubercular treatment for 2 months than discontinued. Physical examination revealed tenderness in the epigastrium without muscle guarding. Bowel sounds were audible.

A plain abdominal X-ray film showed several dilated small bowel loops with multiple air-fluid levels. Ultrasound abdomen shows gaseous abdomen. Resuscitation with IV fluid started and input output measurement done. Broad spectrum antibiotics and Ryle's tube aspiration started. Patient had no sign of improvement after 24 h management than emergency laparotomy was performed through a midline incision, revealing small amount of ascites in the pelvic cavity. Greater omentum forms an encircling band around the mid ileum that causes small bowel obstruction. Omental band released. Stricture formed at the omental band site that was resected and ileostomy done. Distal small bowel loop shows sever inter-bowel adhesion that was difficult to separate. Previous history of anti-tubercular treatment present so we prefer to consider that these adhesion may respond well to anti-tubercular treatment. Multiple mesenteric lymph nodes enlarged. Biopsy of lymph node shows tubercular granuloma. Anti-tubercular treatment started and patient recovers well postoperatively Fig. 1.

3. Discussion

A variety of abdominal conditions can cause intestinal obstructions. The reported prevalence of these obstructions varies in different series depending on the type of practice and the population of patients. About 60% of intestinal obstructions are caused by adhesions, 25% by hernias, and 5–10% by neoplasm [2]. Other less common causes include intussusception, inflammatory bowel disease, and midgut volvulus [2].

Opening the peritoneal cavity leads to the formation of potentially obstructive structures (adhesions or bands) in almost 95% of patients. With the increased incidence of abdominal surgery, these structures are the most frequent cause of small bowel obstruction (SBO) [3]. Internal hernia is a rare cause of small bowel obstruction. The incidence is only 0.2–0.9%. This may be congenital or

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http://dx.doi.org/10.1016/j.ijscr.2015.04.009

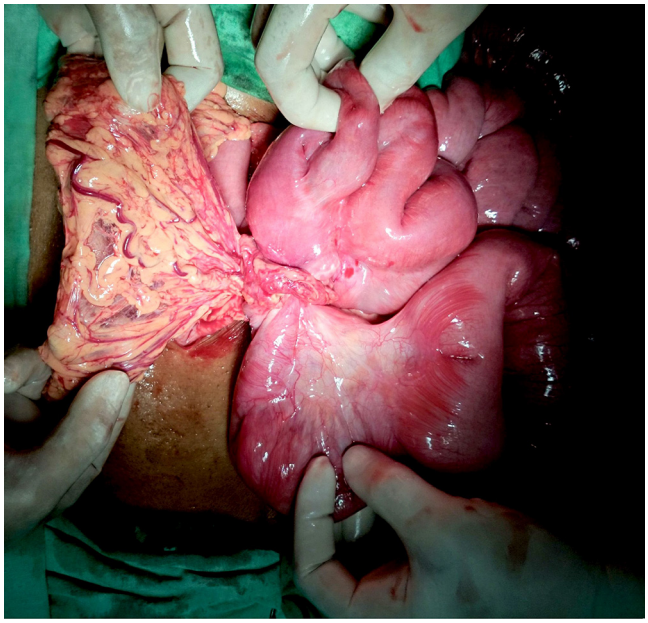

Fig. 1. Omental band arising from greater omentum and encircling around ileum.

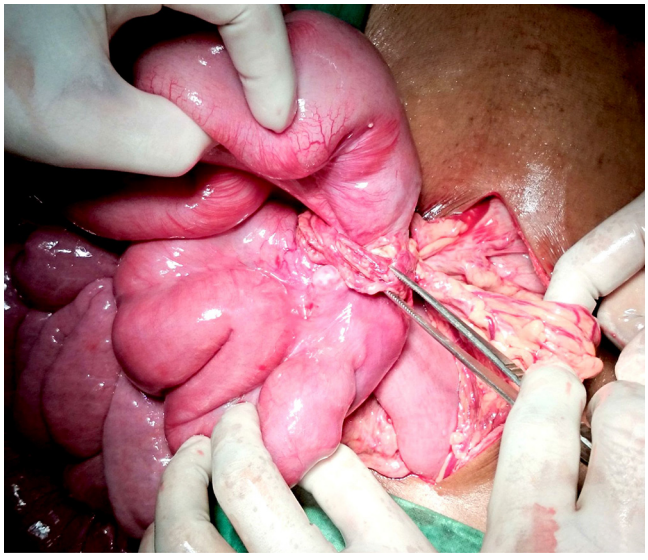

Fig. 2. Complete band with its posterior surface.

acquired and may be persistent or intermittent. There is high risk of strangulation of bowel loops [4]. Congenital hernias occur most commonly in infancy and childhood but rarely can be seen in adults. The most common congenital hernias in adults include obturator (little old ladies hernia), paraduodenal, transmesenteric, and transomental hernias [5]. In advanced abdominal and pelvic malignancy, 5–51% of patients with ovarian malignancies and 10–28% of patients with gastrointestinal cancer will suffer from intestinal obstruction [6]. Adult intussusception represents 1% of patients with bowel obstructions and 5% of all intussusceptions [7].

While, there are many possible causes of SBO, the clinical presentation rarely indicates the exact etiology. Computed tomography (CT) has been shown to be useful in determining the site, level, and cause of obstructions [8]. Identification of adhesion as a cause of SBO remains a diagnosis of exclusion that must be based on the finding of an abrupt change in bowel caliber without evidenc of another cause of obstruction [9]. The characteristic CT features of internal hernia include abnormally located cluster of bowel loops and mesenteric vascular abnormalities such as whirling and twisting [10]. Treatment of small bowel obstruction carried out according to predisposing factor for this Fig. 2.

4. Conclusion

Preoperatively, it is often difficult to identify the cause of the ileus when laparotomy has not been carried out. Even though, there is no history of previous laparotomy, intensive diagnostic investigations and early surgical intervention should be considered in any adult patients with signs and symptoms of acute SBO to avoid possible complications of bowel strangulation and gangrene.

Conflict of interest

No conflict of interest of author.

Funding

No source of funding.

Consent

Consent of patient not required.

Author contribution

All work done by corresponding author Prabhu Dayal Sinwar.

Acknowledgment

I give special thanks to my wife Monika Kuri for her continue support and encouragement to prepare this article.

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